

NNK12438289Q – QUESTIONS AND ANSWERS
96K W AIR COOLED PACKAGED RECIRCULATING CHILLER UNIT

Question 1: The specifications indicate that de-ionized water will be circulated with this unit. Is this correct?

Answer 1: Yes

Question 2: I believe de-ionized water is corrosive to most materials normally used for pumps and chillers. What materials of construction will be allowed for the pumps and chiller?

Answer 2: Austenitic Stainless Steel, copper, or aluminum would be allowable materials

Question 3: Can plastic pipe or vinyl hose be used for piping inside the unit?

Answer 3: No

Question 4: What is the maximum system pressure that the relief valve is intended to protect?

Answer 4: Line item #20 in the spec was intended for protecting over-pressure of the chiller's recirculation pump and not our equipment. The government will provide relief valves at our points of use. However, the chiller discharge pressure should meet the requirement of line item #10, or 55 psig.

Question 5: Does the equipment flow rate change?

Answer 5: No, it should be essentially steady

Question 6: What is the minimum flow?

Answer 6: 1 gpm.

Question 7: Can the system go to no flow while the chiller is running?

Answer 7: Not in a normal operations scenario

Question 8: Paragraph 7 of the SOW says the chiller is to have an adjustable temperature range of 50 to 90 degrees. Is a heater required to obtain these higher water temperatures, or can water be re-circulated until the system heats up to this point?

Answer 8: A coolant temperature control mechanism is required, but it does not have to be an electrical heater

Question 9: Paragraph 21 requires +/- 0.5 degree F temperature control of the supply water temperature. Is this level of temperature control REALLY needed?

Answer 9: We can relax to +/- 1 degree F (a 2 deg band). But +/- 0.5 F is a standard control accuracy for these digital electronic temperature controllers.

Question 10: It is a very, very tight standard that will be hard, if not impossible to accomplish. How is it to be measured - With the system running at steady state with a constant flow and load from the equipment, or does the chiller have to maintain this temperature constantly with varying loads and flow rates?

Answer 10: Load and flow should be essentially constant. That temperature control is not required during transient operations

Question 11: If the latter, how quickly will the system flow rate and heat load fluctuate, that the chilled water system will need to respond to?

Answer 11: N/A

Question 12: Paragraph 25 calls for a remote control panel. Who will provide the necessary wiring between it and the chilled water system?

Answer 12: The government would need to provide and install the control and power cables to this equipment. The government shall be given a wiring diagram

Question 13: How is the interface with the explosion proof controls compartment at the chiller going to be handled?

Answer 13: We would prefer to have at least a 50 foot cord coming out of the compartment for us to plug in our wiring to run to the remote panel. That's a function of the current lay-out and where our Type Z NEMA enclosures will be located at the facility.

Question 14: I anticipate needing more motor controls than what is listed being furnished by NASA KSC. I do not anticipate using either the chiller or pump starters. Is this going to be a problem?

Answer 14: The government would prefer to just give a start command to start up the chiller, condenser fan, and pump. But each motor inside the chiller package could have its own internal motor starter

Question 15: The solicitation asks for dimensions of the equipment. Is there a certain footprint that we should try to fit into?

Answer 15: It needs to be mounted on top of ISO shipping container that is ~8' wide x 40' long.

Question 16: This chilled water system will require at least one chilled water storage tank and at least (2) pumps. Do they need to be mounted on a common base along with the chiller, or can they be mounted separately?

Answer 16: Should be mounted on a common base with the chiller

Question 17: Do they need to be enclosed, or can they be exposed.

Answer 17: Should be protected from the elements.

Question 18: The solicitation does not list any accessories for the chiller. Usually air conditioning equipment is furnished with epoxy coated condenser coils to help protect them from corrosion caused by salt air. Is this wanted?

Answer 18: The solicitation says that complete system shall be made weather resistant for outdoor installation (para. 18)

Question 19: Are disconnect switches to be furnished with the equipment?

Answer 19: Local disconnect switches are required per the National Electric Code.

Question 20: Can (1) disconnect be furnished for the whole system, or will you require one for each component, (pumps and chiller)?

Answer 20: One for the system should be sufficient.

Question 21: Should the condenser be furnished with louvered panels or hail guards?

Answer 21: See para. 18.